

THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Asgrow Seed Company

Whereas, THERE HAS BEEN PRESENTED TO THE
Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED NOVEL VARIETY OF SEXUALLY REPRODUCED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF *seventeen* YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT (STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

SOYBEAN

'A2444'

In Testimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington this ninth day of May in the year of our Lord one thousand nine hundred and seventy-seven

Attest:

J. J. Rollin

Commissioner
 Plant Variety Protection Office
 Grain Division
 Agricultural Marketing Service

Bob Denmark

Acting Secretary of Agriculture

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

INSTRUCTIONS: See Reverse.

1a. TEMPORARY DESIGNATION OF VARIETY <u>A2444</u>		1b. VARIETY NAME <u>A2444</u>		FOR OFFICIAL USE ONLY PV NUMBER <u>7700006</u>	
2. KIND NAME <u>Soybean</u>		3. GENUS AND SPECIES NAME <u>Glycine max</u>		FILING DATE <u>10-29-76</u>	TIME <u>2:00</u> P.M.
4. FAMILY NAME (BOTANICAL) <u>Leguminosae</u>		5. DATE OF DETERMINATION <u>1971</u>		FEE RECEIVED \$ <u>250.00</u> \$ <u>250.00</u> \$ <u>250.00</u>	DATE _____ _____ _____
6. NAME OF APPLICANT(S) <u>Asgrow Seed Company</u>		7. ADDRESS (Street and No. or R.F.D. No., City, State, and ZIP Code) <u>Kalamazoo, Michigan 49001</u>		8. TELEPHONE AREA CODE AND NUMBER <u>616-385-6605</u>	
9. IF THE NAMED APPLICANT IS NOT A PERSON, FORM OF ORGANIZATION: (Corporation, partnership, association, etc.) <u>Corporation</u>			10. IF INCORPORATED, GIVE STATE AND DATE OF INCORPORATION <u>Delaware</u>		11. DATE OF INCORPORATION <u>March 22, 1968</u>

12. Name and mailing address of applicant representative(s), if any, to serve in this application and receive all papers:

John A. Batcha
Asgrow Seed Company
7000 Portage Rd.
Unit 9630-190-1
Kalamazoo, MI 49001

13. CHECK BOX BELOW FOR EACH ATTACHMENT SUBMITTED:

- 13A. Exhibit A, Origin and Breeding History of the Variety (See Section 52 of the Plant Variety Protection Act.)
- 13B. Exhibit B, Novelty Statement.
- 13C. Exhibit C, Objective Description of the Variety (Request form from Plant Variety Protection Office.)
- 13D. Exhibit D, Additional Description of the Variety.

14A. Does the applicant(s) specify that seed of this variety be sold by variety name only as a class of certified seed? (See Section 83(a). (If "Yes," answer 14B and 14C below.) YES NO

14B. Does the applicant(s) specify that this variety be limited as to number of generations? YES NO

14C. If "Yes," to 14B, how many generations of production beyond breeder seed? FOUNDATION REGISTERED CERTIFIED

15. Does the applicant(s) agree to the publication of his/her (their) name(s) and address in the Official Journal? YES NO

16. The applicant(s) declare(s) that a viable sample of basic seed of this variety will be deposited upon request before issuance of a certificate and will be replenished periodically in accordance with such regulations as may be applicable.

The undersigned applicant(s) is (are) the owner(s) of this sexually reproduced novel plant variety, and believe(s) that the variety is distinct, uniform, and stable as required in Section 41, and is entitled to protection under the provisions of Section 42 of the Plant Variety Act.

Applicant(s) is (are) informed that false representation herein can jeopardize protection and result in penalties.

October 21, 1976
(DATE)

John A. Batcha
(SIGNATURE OF APPLICANT)

00001

(DATE)

(SIGNATURE OF APPLICANT)

EXHIBIT A

Origin and Breeding History of the Variety

- 1968 - Original Cross: M60-406 x Amsoy 71
M60-406 = (Blackhawk x Harosoy)
- 1969 - F₁ grown in Iowa
- 1969-70 - F₂ and F₃ grown in Puerto Rico
- 1970 - F₄ grown as bulk in Iowa
- 1971 - F₅ Progeny Row Selection 0075-71-11629-51710 made from tests in Iowa. Plants within the selected progeny row were uniform for height, maturity, flower and pubescence color.
- 1972 - F₆ grown in Preliminary Tests in Iowa - planted in 2-row plot and replicated twice at one location.
- 1973 - F₇ Retest - replicated yield tests ran in Iowa. C73-51710 experimental designation given to A2444. All plants within test plots of A2444 were uniform.
- 1974 - Advanced Yield Tests conducted at six locations in Iowa, Minnesota and Indiana. Breeder Seed (9 bushels) were produced at Ames, Iowa. In addition, 300 plant rows were grown at Ames, Iowa, and checked for trueness to type. No noticeable segregation was found among the plant rows of A2444, thus indicating genetic stability.
- 1975 - Retested in yield trials and Basic Seed produced. 450 bushels were produced at Oxford, Indiana.

Again Breeder and Basic Seed fields showed no genetic offtypes present in samplings made at time of flowering and at maturity.

A2444 was submitted to Iowa, Illinois, Indiana, Ohio and Minnesota tests for State Yield Tests.

October 18, 1976

00002

Asgrow Seed Company
Soybean A2444

7700006

EXHIBIT B

Novelty Statement

To our knowledge the variety which most closely resembles A2444 is
Amsoy 71. The characteristic which makes A2444 different than
Amsoy 71 is flower color.

A2444 White flower

Amsoy 71 Purple flower

While flower color differentiates these two varieties, the difference
between these two varieties is not necessarily restricted to this
characteristic.

Revised

December 7, 1976

00003

JB

OBJECTIVE DESCRIPTION OF VARIETY
SOYBEAN (GLYCINE MAX)

A2444

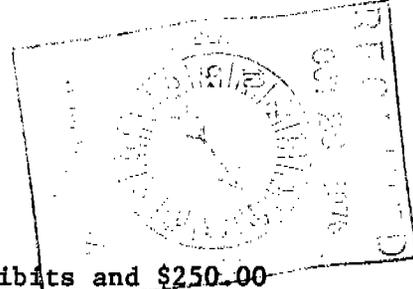
INSTRUCTIONS: See Reverse.

NAME OF APPLICANT(S) Asgrow Seed Company	FOR OFFICIAL USE ONLY
	PVPO NUMBER 7700006
ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP Code) Kalamazoo, Michigan 49001	VARIETY NAME OR TEMPORARY DESIGNATION

Place the appropriate number that describes the varietal character of this variety in the boxes below.

1. SEED SHAPE: <input type="checkbox"/> 1 = SPHERICAL <input type="checkbox"/> 2 = SPHERICAL FLATTENED <input type="checkbox"/> 3 = ELONGATE <input type="checkbox"/> 4 = OTHER (Specify)	
2. SEED COAT COLOR: SHADE: <input type="checkbox"/> 1 = YELLOW <input type="checkbox"/> 2 = GREEN <input type="checkbox"/> 3 = BROWN <input type="checkbox"/> 4 = BLACK <input type="checkbox"/> 5 = OTHER (Specify) <input type="checkbox"/> 1 = LIGHT <input type="checkbox"/> 2 = MEDIUM <input type="checkbox"/> 3 = DARK	
3. SEED COAT LUSTER: <input checked="" type="checkbox"/> 1 = DULL <input type="checkbox"/> 2 = SHINY	4. SEED SIZE <input type="checkbox"/> 1 <input type="checkbox"/> 8 GRAMS PER 100 SEEDS
5. HILUM COLOR: SHADE: <input type="checkbox"/> 1 = BUFF <input type="checkbox"/> 2 = YELLOW <input type="checkbox"/> 3 = BROWN <input type="checkbox"/> 4 = GRAY <input type="checkbox"/> 5 = IMPERFECT BLACK <input type="checkbox"/> 6 = BLACK <input type="checkbox"/> 7 = OTHER (Specify) <input type="checkbox"/> 1 = LIGHT <input type="checkbox"/> 2 = MEDIUM <input type="checkbox"/> 3 = DARK	
6. COTYLEDON COLOR: <input type="checkbox"/> 1 = YELLOW <input type="checkbox"/> 2 = GREEN	7. LEAFLET SIZE (See Reverse): <input type="checkbox"/> 1 = SMALL <input type="checkbox"/> 2 = MEDIUM <input type="checkbox"/> 3 = LARGE
8. LEAFLET SHAPE: <input type="checkbox"/> 1 = OVATE <input type="checkbox"/> 2 = OBLONG <input type="checkbox"/> 3 = LANCEOLATE <input type="checkbox"/> 4 = ELLIPTICAL <input type="checkbox"/> 5 = OTHER (Specify)	
9. LEAF COLOR (See reverse): 10. FLOWER COLOR: <input type="checkbox"/> 1 = LIGHT GREEN <input type="checkbox"/> 2 = MEDIUM GREEN <input type="checkbox"/> 3 = DARK GREEN <input type="checkbox"/> 1 = WHITE <input type="checkbox"/> 2 = PURPLE <input type="checkbox"/> 3 = OTHER (Specify)	
11. POD COLOR: 12. POD SET: <input type="checkbox"/> 1 = TAN <input type="checkbox"/> 2 = BROWN <input type="checkbox"/> 3 = BLACK <input type="checkbox"/> 1 = SCATTERED <input type="checkbox"/> 2 = CONCENTRATED	
13. PLANT PUBESCENCE COLOR: SHADE: <input type="checkbox"/> 1 = GRAY <input type="checkbox"/> 2 = BROWN <input type="checkbox"/> 3 = OTHER (Specify) <input type="checkbox"/> 1 = LIGHT <input type="checkbox"/> 2 = MEDIUM <input type="checkbox"/> 3 = DARK	
14. PLANT TYPES (See Reverse): 15. PLANT HABIT: <input type="checkbox"/> 1 = SLENDER <input type="checkbox"/> 2 = BUSHY <input type="checkbox"/> 3 = INTERMEDIATE <input type="checkbox"/> 1 = DETERMINATE <input type="checkbox"/> 2 = INDETERMINATE <input type="checkbox"/> 3 = OTHER (Specify)	
16. HYPOCOTYL COLOR: 17. SEED PROTEIN: <input type="checkbox"/> 1 = GREEN <input type="checkbox"/> 2 = PURPLE <input type="checkbox"/> 1 = A <input type="checkbox"/> 2 = B	
18. NUMBER OF DAYS TO FLOWERING (Place a zero in first box (e.g. 09) when days are 9 or less.) 19. MATURITY GROUP: <input type="checkbox"/> 5 <input type="checkbox"/> 2 <input type="checkbox"/> 4 1 = 00 2 = 0 3 = I 4 = II 5 = III 6 = IV 7 = V 8 = VI 9 = VII 10 = VIII	
20. SIZE OF 10 DAY OLD SEEDLING GROWN UNDER CONSTANT LIGHT (Growth Chamber) AT 25° C. (Place a zero in first box (e.g. 02) when size is 9 mm. or less.) <input type="checkbox"/> 1 <input type="checkbox"/> 3 <input type="checkbox"/> 7 MM. LENGTH OF SEEDLING <input type="checkbox"/> 2 <input type="checkbox"/> 3 MM. LENGTH OF COTYLEDON <input type="checkbox"/> 1 <input type="checkbox"/> 2 MM. WIDTH OF COTYLEDON	
21. DISEASE: (Enter 0 = Not Tested; 1 = Susceptible; 2 = Resistant)	
<input type="checkbox"/> 2 BACTERIAL PUSTULE <input type="checkbox"/> 1 SOYBEAN CYST <input type="checkbox"/> 1 DOWNY MILDEW <input type="checkbox"/> 1 PURPLE STAIN <input type="checkbox"/> 1 POD AND STEM BLIGHT <input type="checkbox"/> 1 ROOT KNOT	
<input type="checkbox"/> 2 FROGEYE <input type="checkbox"/> 2 STEM CANKER <input type="checkbox"/> 2 PHYTO-PHTHORA <input type="checkbox"/> 1 BROWN STEM ROT <input type="checkbox"/> 1 TARGET SPOT <input type="checkbox"/> 1 BROWN SPOT	
<input type="checkbox"/> 1 BUD BLIGHT <input type="checkbox"/> 1 WILDFIRE <input type="checkbox"/> 1 RHIZOCTONIA ROT <input type="checkbox"/> OTHER (Specify)	00004

INSTRUCTIONS



GENERAL: Send an original copy of the application, exhibits and \$250.00 fee to U.S. Dept. of Agriculture, Agricultural Marketing Service, Grain Division, National Agricultural Library, Beltsville, Maryland 20705. (See Section 180.175 of the regulations and rules of practice.) Retain one copy for your files. All items on the face of the form are self-explanatory unless noted below.

ITEM

- 5 Give the date the applicant determined that he had a new variety based on (1) the definition in Section 41(a) of the Act and (2) the date a decision was made to increase the seed.
- 13a Give (1), the genealogy, including public and commercial varieties, lines, or clones used, and the breeding method. (2), the details of subsequent stages of selection and multiplication. (3), the type and frequency of variants during reproduction and multiplication and state how these variants may be identified and (4), evidence of stability.
- 13b Give a summary statement of the variety's novelty. Clearly state how this novel variety may be distinguished from all other varieties in the same crop. If the new variety most closely resembles one or a group of related varieties; (1) identify these varieties and state all differences objectively; (2) Attach statistical data for characters expressed numerically and demonstrate that these differences are significant; and (3) submit, if helpful, seed and plant specimens or photographs of seed and plant comparisons clearly indicating novelty.
- 13c Fill in the Exhibit C, Objective Description form for all characteristics, for which you have adequate data.
- 13d Describe any additional characteristics that are not described, or whose description cannot be accurately conveyed in Exhibit C. Use comparative varieties as is necessary to reveal more accurately the description of characteristics that are difficult to describe; such as; plant habit, plant color, disease resistance, etc.
- 14A If "YES" is specified (seed of this variety be sold by variety name only as a class of certified seed) the applicant may NOT reverse his affirmative decision after the variety has either been sold and so labeled or published or the certificate has been issued. However, if the applicant specifies "NO", he may change his choice. (See Section 180.15 of the Regulations and Rules of Practice.)

EXHIBIT D

Additional Description of Variety

Hypocotyl Elongation tests as described by Burris and Fehr in Crop Science, 1970, were conducted by Asgrow. The following results were found:

<u>Variety</u>	<u>Lot</u>	<u>% Germ.</u>	<u>#Plants Emerged in 10 days</u>			<u>Total Emerged Out of 75</u>	<u>Rating</u>
			<u>I</u>	<u>Rep II</u>	<u>III</u>		
A2444	A	81	14	10	16	40	3
	B	92	14	12	8	34	3
Corsoy	A	95	24	25	25	74	1
	B	80	20	21	22	63	1
Amsoy 71	A	91	3	2	1	6	5
	B	81	1	0	1	2	5

A2444 has an intermediate emergence rating of 3, whereas Corsoy has a high emergence rating of 1 and Amsoy 71 a low rating of 5.

A2444 has a tendency to have green stems at maturity. The stems of A2444 remain green 3 days after pods are dry.

October 18, 1976

00006

Upjohn

THE UPJOHN COMPANY

MEDICINE... DESIGNED FOR HEALTH... PRODUCED WITH CARE
KALAMAZOO, MICHIGAN 49001
D-U-N-S NUMBER 00-532-0742

No. 0555191 74-42
724

REFERENCE

CHECK NO.
555191

CHECK DATE
05 23 83

PAY THIS AMOUNT
*****218.00

PAY TWO HUNDRED EIGHTEEN AND NO/100 *****
DOLLARS *****

TO THE ORDER OF
US TREASURER
WASHINGTON

DC 20220

THE FIRST NATIONAL BANK AND TRUST COMPANY OF MICHIGAN
KALAMAZOO, MICHIGAN

Copies & authentication

7600063	7700034	8000086
7600064	7700059	8000147
7700006	7700100	8000148
7700007	7700111	8100081
	7900037	8100082
		8100083

⑈0555191⑈ ⑆07240042⑆ 023 02941 3⑈

THIS DOCUMENT VOID UNLESS BORDER IS DARK BLUE AND BACKGROUND IS LIGHT BLUE

PV# 7600063 \$32

PV# 7600064 \$16

PV# 7700006 \$14

PV# 7700007 \$12

PV# 7700034 \$12

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7700111 \$14

7900037 \$14

PV# 8000086 \$14

8000147 \$12

8000148 \$12

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22. INDICATE WHICH VARIETY MOST CLOSELY RESEMBLES THAT SUBMITTED.

CHARACTER	NAME OF VARIETY	CHARACTER	NAME OF VARIETY
Plant shape	Amsoy 71	Petiole angle	Amsoy 71
Leaf shape	Amsoy 71	Seed size	Amsoy 71
Leaf color	Amsoy 71	Seed shape	Amsoy 71
Leaf surface	Amsoy 71	Seedling pigmentation	Wayne

23. GIVE DATA FOR SUBMITTED AND SIMILAR STANDARD VARIETY:

VARIETY	NO. OF DAYS TO MATURITY	LODGING SCORE	PLANT HEIGHT	LEAF SIZE		CONTENT		AVERAGE NO. OF PODS PER PLANT	IODINE NO.
				Width	Length	Protein	Oil		
Submitted	145	1.4	35	MM	MM	39.5	21.0%	79	--
Name of similar variety Amsoy 71	147	2.1	37	9.5	6.0	39.0	21.2	78	--

INSTRUCTIONS

GENERAL: The following publications may be used as a reference aid for completing this form:

1. Scott, Walter O. and Samuel R. Aldrich, 1970, Modern Soybean Production, The Farmer Quarterly.
2. Norman, A. G., 1963, The Soybean: Genetics, Breeding, Physiology, Nutrition, Management.
3. McKie, J. W., and K. L. Anderson, 1970, The Soybean Book.

LEAF COLOR: Nickerson's or any recognized color fan may be used to determine the leaf color of the described variety. The following Soybean varieties may be used as a guide to identify the colors listed on the form.

COLOR	VARIETY
Light Green	"Ada"
Medium Green	"Wilkin"
Dark Green	"Swift"

LEAF SIZE: The following varieties may be used as a guide to identify the relative size leaves.

SIZE	VARIETY
Small	"Amsoy"
Medium	"Bonus"
Large	"Anoka"

PLANT TYPE: The following varieties may be used as a guide to identify the plant type.

TYPE	VARIETY
Slender	"Vansoy"
Intermediate	"Wirth"
Bushy	"Adelphia"

